

ESL. When the predetermined time period has passed, or when the end time occurs, the ESL circuitry restores power to the receiver, allowing the ESL to receive messages. In a preferred embodiment, a single broadcast message may be sent to all ESLs in a store, allowing all the ESL receivers to be turned off in an efficient manner. In another aspect, groups of ESLs may be woken up at different times.

A more complete understanding of the present invention, as well as further features and advantages of the invention, will be apparent from the following detailed description and the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a block diagram of a transaction management system in accordance with the present invention;

Fig. 2 is a block diagram of an ESL in accordance with the present invention; and

Fig. 3 shows a method of reducing ESL power consumption in accordance with the present invention.

DETAILED DESCRIPTION

The present invention now will be described more fully with reference to the accompanying drawings, in which several presently preferred embodiments of the invention are shown. This invention may, however, be embodied in various forms and should not be construed as limited to the embodiments set forth herein. Rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art.

Further details of an ESL system suitable for use in conjunction with the present invention are found in U.S. Patent Application Serial No. 10/044,021, pending, filed January 11,

2001 entitled "Methods and Apparatus for Performing Delta Updates of an Electronic Shelf
 Label", U.S. Patent Application Serial No. 10/044,610, ^{now U.S. Patent No. 6,976,206,} filed January 11, 2001 entitled
 "Methods and Apparatus for Intelligent Data Bedcheck of an Electronic Shelf Label", U.S. Patent
 Application Serial No. 10/044,020, ^{now U.S. Patent No. 6,626,359,} filed January 11, 2001 entitled "Methods and
 Apparatus for Reduced Electronic Shelf Label Power Consumption", U.S. Patent Application
 Serial No. 10/044,535, ^{now U.S. Patent No. 7,007,219,} filed January 11, 2001 entitled "Methods and Apparatus for
 Error Detection and Correction of an Electronic Shelf Label System Communication Error", U.S.
 Patent Application Serial No. 10/044,439, ^{now U.S. Patent No. 6,885,287,} filed January 11, 2001 entitled "Methods and
 Apparatus for Automatically Locating an Electronic Shelf Label", U.S. Patent Application Serial
 No. 10/044,688, ^{still pending,} filed January 11, 2001 entitled "Methods and Apparatus for Automatic
 Assignment of a Communication Base Station and Timeslot for an Electronic Shelf Label", U.S.
 Patent Application Serial No. 10/044,687, ^{now U.S. Patent No. 6,877,133,} filed January 11, 2001 entitled "Methods and
 Apparatus for Error Detection and Correction in an Electronic Shelf Label System", all of which
 are assigned to the assignee of the present invention and incorporated by reference herein in their
 entirety.

Fig. 1 shows a transaction management system 100 in accordance with the present
 invention. The system 100 includes an ESL host computer system 102 and a point-of-sale (POS)
 system 114. Here, components 102 and 114 are shown as separate components that are
 networked together, but they and their subcomponents may also be combined or divided in
 various ways.

The host computer system 102 includes an ESL table 109, spool tables 104, data reader
 108, ESL manager 110, a client 106 and a communication base station (CBS) manager 112. POS
 system 114 includes a price look-up (PLU) file 118 and POS terminals 116.